

**REMARKS**

Claims 1-42 are pending in this application. Claims 1, 10, 16, 17, 27 and 31 are independent claims. No claims are amended and no claims are canceled in the foregoing amendment. Reconsideration and allowance of the present application are respectfully requested.

**Allowable Subject Matter**

Applicants note with appreciation the Examiner's indication that claims 7-10, 18-21, 27-30, and 38-41 contain allowable subject matter. However, these claims have been maintained in dependent form at this time as the independent claims from which they respectively depend are believed allowable for the reasons detailed below.

**Claim Rejections under 35 U.S.C. § 103(a) – *Hasting in view of Challa***

Claims 1-6, 11-17, 22-26, 31-37 and 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication 2005/0209789 to Hastings (hereinafter "Hastings") in view of U.S. Patent Publication 2003/0067898 to Challa et. al (hereinafter "Challa"). Applicants respectfully traverse this rejection, as detailed below.

**MPEP 706.02(j) sets forth the standard for a Section 103(a) rejection:**

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Additionally, the recently published "Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in KSR International

Co. v. Teleflex Inc.”, (hereinafter “KSR Guidelines”) further supports the basic requirement for a finding of obviousness as clearly articulated in the following.

To reject a claim based on this rationale, Office personnel must resolve the Graham factual inquiries. Office personnel must then articulate the following:

(1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;

(2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely would have performed the same function as it did separately;

(3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and

(4) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

The rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention. “[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art.

Applicants respectfully submit the 35 U.S.C. § 103(a) obviousness rejections of claims 1-6, 11-17, 22-26, 31-37 and 42 are improper because the elements for a *prima facie* case of obviousness are not met.

*i) The References do not Teach or Suggest All the Features of the Claimed Invention*

The rejection fails to meet the criterion that the prior art must teach or suggest all the claims’ limitations or as stated in the KSR Guidelines “a finding that the prior art included each element claimed.” Each of Applicants’ independent claims 1, 12, 23 and 32 recite, in part,

features such as *"wherein a local maximum is detected if the first and second data elements are the same element."* Applicants respectfully assert that Hastings and Challa, either alone or in combination, fail to teach or suggest at least this feature of independent claims 1, 12, 23 and 32.

Applicants agree with the Examiner that Hastings does not teach or suggest the above feature. However, Applicants respectfully disagree with the Examiner's assertion that this feature can be found in Challa.

Challa is directed to pilot acquisition over a code space in a wireless system. Pilot signals are searched in the code space using a number of substages: a detect substage, a dwell substage, and a pull-in substage. In the detect substage, the entire code space to be searched is divided into a number of non-overlapping code segments. Each non-overlapping code segment is then searched independently for peaks (see Challa, [0066]). In the dwell substage, a search is performed over a window centered at each of the detected peaks. A particular number of the candidate peaks (typically the largest peaks found) from all such searches are then selected (see Challa, [0067]). In the pull-in substage, a finger processor is assigned to each candidate peak selected in the dwell substage. Each finger processor then attempts to acquire and lock to the frequency and timing of the assigned peak to acquire a pilot signal (see Challa, [0068]).

In contrast, independent claim 1, for example, recites *inter alia* an apparatus for detecting a local maximum including first detection logic that detects a first data element representing a peak in a first dimension, and second detection logic that detects a second data element representing a peak in a second dimension, "wherein a local maximum is detected if the first and second data elements are the same element." Independent claims 12, 23 and 32 recite similar features. Challa teaches a way of detecting peaks which is fundamentally different from the claimed invention. As demonstrated above, peaks are detected in Challa if they are initially found in one of the non-overlapping regions and confirmed by a more local search within a window centered on each potential peak. Therefore, Challa does not detect different elements representing peaks in different dimensions, and cannot teach or suggest detecting a local maximum by comparing elements representing peaks in different dimensions.

Thus, Hastings in view of Challa, either alone or in combination, fails to teach or suggest at least *"wherein a local maximum is detected if the first and second data elements are the same*

*element*” as recited in independent claim 1, and similarly recited in independent claims 12, 23 and 32.

*ii) There is not Sufficient Suggestion or Motivation to Combine or Modify the References*

Secondly, the rejection fails to meet the *prima facie* obviousness criterion that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references.

As described above, peak detection in Challa relies on initially dividing the code space to be searched into non-overlapping code segments (see Challa, [0066]). In contrast, Hastings is directed to automatic peak selection in multidimensional data that compares local noise thresholds across each dimension for the entire data set (see Hastings, Abstract). These are fundamentally distinct and mutually exclusive approaches to peak detection. For example, Hastings would be unable to compare local noise thresholds across each dimension of a multidimensional data set if that data set is divided into independently searched, non-overlapping code segments. Thus, Hastings not only teaches away from the proposed combination with Challa, but would also be rendered inoperable by the proposed combination. It is a well known tenet of U.S. patent law that it is improper to combine references where the references teach away from their combination. See In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). See also MPEP § 2145. It also is a well known tenet of U.S. patent law that if a proposed modification would render the reference’s invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. See In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). See also MPEP § 2143.01.

Accordingly, Hastings in view of Challa cannot render obvious, under 35 U.S.C. §103(a), Applicants' invention as presently claimed in independent claims 1, 12, 23 and 32. The nonobviousness of independent claims 1, 12, 23 and 32 also precludes the rejections of claims 2-6, 11, 13-17, 22, 24-26, 31, 33-37 and 42, which variously depend therefrom, because a dependent claim may not be rejected as obvious if the independent claim from which it depends

is nonobvious. *See In re Fine*, 5 USPQ.2d 1596, 1600 (Fed. Cir. 1988). *See also* MPEP § 2143.03.

Therefore, the Applicants respectfully request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejections to claims 1-6, 11-17, 22-26, 31-37 and 42.

### **CONCLUSION**

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

Dated: November 20, 2007

By: /John Luigi Ciccozzi/  
John Ciccozzi  
Reg. No. 48,984

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, California 92121  
Telephone: (858) 658-5102  
Facsimile: (858) 658-2502